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SOURCES OF HORTICULTURAL INVESTMENTS IN THE KALISZ DISTRICT AS A PART OF SELECTED MEASURES UNDER THE 2007-2013 RDP

Abstract: The implementation of Measures covered by the 2007-2013 RDP in rural areas resulted in a large boost of investments. In the Kalisz district, “Modernization of farms” (Measure 121) and “Setting up of young farmers” (Measure 112) were the Measures of major interest to the horticulture sector. The total operating costs of projects implemented under Measure 121 in the entire Kalisz district were PLN 117,633,543. The applicants used the support to purchase 355 mobile equipment items, including 4 agricultural tractors, 42 agricultural machines, farm tools, devices and means of transport for crop production. Also, several greenhouses were built, repaired and upgraded. As regards Measure 112, the funds in the form of premiums were used for the modernization of machinery, i.e. purchase of specialized horticultural machines or equipment.

Key words: Agency for Restructuring and Modernization of Agriculture, horticulture industry, setting up of young farmers, modernization of farms, 2007-2013 RDP

INTRODUCTION

Investment is a complex process aimed at increasing the value of an enterprise or farm. By making the right decisions, the operators upgrade their facilities while increasing the value of their assets with the use of various sources of financing. When selecting a source of financing, the acceptable risk level and the financial and economic standing should be taken into account (Nosecka, Gugała 2012). Today, farms and horticultural undertakings are forced to diversify and improve their products on a continuous basis. They provide the customers with value-added products, instilling benefits that go beyond the products’ basic attributes (functional benefits) (Stefko 2011, Wawrzyniak 1999). When fighting for potential customers, horticultural operators are capable of spending large sums of money on investments aimed, for instance, at improving the production quality (Stefko 2010 and Kierczyńska 2007). The investment process involves keeping up with market changes, improving the company’s competitiveness and making efforts to increase the company value. As emphasized by Grzywacz and Jabłońska (2013), by making the right decisions, the operators upgrade their facilities while increasing the values of their assets. To do so, horticultural undertakings and farms willingly access the Union funds (Kalinowski at all. 2013). Generally, the development of horticultural undertakings and farms is based on implementing efficient investment projects which affect both the quantitative and qualitative growth (Duliniec 2011, p. 109).

The Agency for Restructuring and Modernization of Agriculture (ARiMR) plays a major role in positive developments taking place in Polish rural areas. While helping to improve the quality of labor, the broad range of Measures implemented by ARiMR improve the efficiency of the horticultural business and ensure protection of the natural environment (Wojcieszak 2014). This paper attempts to analyze the use of Union funds in the Kalisz district as a part of two Measures: Modernization of farms (Measure 121) and Setting up of young farmers (Measure 112). Undoubtedly, the investments implemented by the horticulturists and horticultural undertakings as a part of these two Measures result in reducing the costs and improving the organization of production

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processes. Also, the Union funds accessed contribute to the increase in farming incomes and enable better economies of scale (Ziętara, Sobierajewska 2012).

MATERIAL AND METHOD

The purpose of these considerations was to identify and analyze the implementation of selected Measures of the 2007-2013 Rural Development Program (RDP) as a source of horticultural investments in the Kalisz district. This paper is an analysis based on desk research, and intends to tackle the issue of European Union (EU) payments. The use of adequate data collection and analysis methods and of a specific research procedure was required to attain the defined objectives. This study is based on an analysis of materials collected. The selection of methods was determined by the availability of source materials, including secondary data (reports, public statistics document, literature related to the concept of innovation and to the financing for economic operators) and primary data (unpublished data delivered by the Agency for Restructuring and Modernization of Agriculture) on the two Measures (121 and 112). The figures collected were analyzed with the use of selected statistical methods. This study provides a basis for further analyses.

RESULTS OF THE STUDY

The Kalisz district is a typical agricultural region with both farms and horticultural undertakings who rely on various sources of financing, including Union grants. This paper presents and analyzes two Measures, i.e. Modernization of farms (Measure 121) and Setting up of young farmers (Measure 112), implemented under the 2007-2013 RDP. It should be noted that these were the two most popular Measures with the horticulturists, members of horticultural households and horticultural undertakings. As shown by the study, 109 horticulturists (including two legal persons) applied for aid under Measure 121. Over 26% of applicants were located in the Opatówek municipality, followed by beneficiaries from the following municipalities: Żelazków (24.30%), Blizanów (22.43%), Koźminek (12.15%), Szczytniki (10.5%), Stawiszyn (3.74%) and Godziesze (0.93%). In the Opatówek municipality, two legal persons applied for Union funds. No applications for aid were filed in the following municipalities: Ceków Kolonia, Brzeziny, Mycielin and Lisków. When analyzing the main goal, it may be concluded that as regards Measure 121, the aid applied for by the horticulturists from the Kalisz district was mainly intended for projects from the following areas: introducing new production technologies; adjusting the profile, scale and quality of production to match the market needs; improving production quality; improving hygiene conditions of production; improving the environmental protection conditions; upgrading the technical infrastructure of the production, including road infrastructures; and improving production safety, including safety at work (Table 1).

The applicants for payment provided detailed descriptions of main goals, including the intended ways of spending the funds and the investment effects of the project concerned. For instance, as a part of the goal defined as Adjusting the profile, scale and quality of production to match the market needs, applications were filed for the financing of multiple projects, including: building and equipping a greenhouse; modernization of machinery; modernization of production facilities; planting new fruit trees; extending the area under glass; hardening the maneuvering yard. Also, the beneficiaries declared that the allocated funds would enable increasing the value added by at least 10%, enhancing the efficiency and improving safety at work in their farms. Meanwhile, the use of state-of-the-art technologies will support environmental protection. Based on data collected, it was concluded that four beneficiaries (including three from the Żelazków municipality and one from the Stawiszyn municipality) cancelled their payment applications because of their failure to comply with formal requirements. When analyzing the legal persons applying for Union funds, it was noted that for the first one, the main goal was to improve production safety (including safety at work) while the specific goal was to improve production safety; improve the environmental

protection conditions; and increase the farm's value added by at least 10% with the purchase of machinery and equipment.

Table 1. Main goal of investments under 2007-2013 RDP (Measure 121)

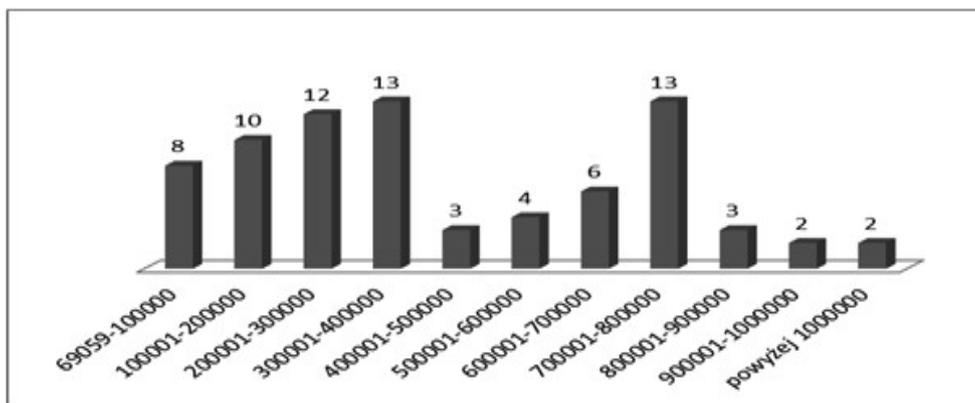
Main goal	OPATÓWEK	KOŹMINEK	BLIZANÓW	SZCZYTNIKI	GODZIESZE	STAWISZYN	ŻELAZKÓW	TOTAL
Introducing new production technologies	8	4	7	0	0	1	3	23
Adjusting the profile, scale and quality of production to match the market needs	3	1	10	1	0	3	5	23
Improving production quality	12	8	4	5	0	2	11	42
Improving hygiene conditions of production	0	0	0	1	1	0	0	2
Improving the environmental protection conditions	1	0	1	0	0	0	1	3
Upgrading the technical infrastructure of the production, including road infrastructures	0	0	0	0	0	0	1	1
Improving production safety, including safety at work	0	0	1	0	0	0	0	1
Non-identified	4	0	1	2	0	0	5	12
TOTAL:	28	13	24	9	1	6	26	107

Source: own study based on unpublished ARiMR data of May 11, 2017

The second legal person from the Kalisz district applied for a Union subsidy to improve production quality, including without limitation to improve production safety and quality of vegetable crops and to enhance the farm's performance. In the case of the first operator, the investment value was PLN 1,113,591.00 while the second operator applied for an amount of PLN 911,180.00 (first stage, the assistance stage). As shown by the analyses, only the first of them completed the financing stage which allowed it to purchase 3 mobile equipment items, i.e. agricultural machines, farm tools, devices and means of transport (other than tractors) for crop production, including software. The analyses also demonstrated that natural persons mostly applied for an amount of financing ranging from PLN 700,000 to PLN 800,000 (first stage, the assistance stage). In the group of 22 persons, nine applied for financing an investment aimed at improved production quality. The lowest amount of financing set out in the application was PLN 716,676.00, and was allocated to the purchase of machines, equipment or farm tools, including software (PLN 582,911.00), and to the purchase or construction of other technical infrastructure components directly affecting the conditions of farming operations (PLN 133,767.00). In the group of 9 persons referred to above, the highest investment value was declared by a 48-year-old applicant based in Opatów who planned the following expenditure: PLN 456,299.00: construction or repair of a greenhouse (including modernization); PLN 184,500.00: purchase of machinery, equipment or production tools; PLN 132,343.00: purchase or construction of other technical infrastructure components directly affecting the conditions of farming operations; and PLN 12,300.00: other operating costs. As revealed by the analysis, 15% of applicants failed to qualify to the second stage (payment stage). It turned out that due to formal shortcomings, errors in the application and its attachments, the complicated documentation was an important barrier for many applicants. Inaccuracies in the documentation, lack of adequate certificates, or withdrawal of applications were the reasons for the reduced number of applicants at stage two (payment stage) (graph 1). Also, starting the investment prior to the day of submitting the financing application was a frequent



mistake. At stage two, i.e. the payment stage, the amounts applied for ranged from PLN 700,000 to PLN 800,000. Meanwhile, as regards legal persons, the investment amounts went beyond PLN 1 million. The operators covered by this analysis made investments aimed at improving production safety. In turn, natural persons who applied for financing used the grants to purchase machines, equipment or farming tools, including software. When analyzing their investment targets, it was noted that natural persons maintained their main goals declared at assistance stage, and applied for Union funds to: improve production quality; reduce production costs and improve the organization of production; increase the farming incomes; and achieve better economies of scale. As demonstrated by the analysis, the total operating costs of projects implemented in the entire Kalisz district were PLN 117,633,543. The applicants used the support to purchase 355 mobile equipment items, including 4 agricultural tractors, 42 agricultural machines, farm tools, devices and means of transport (other than tractors) for crop production. Also, several greenhouses (with a total area of 108,880.07 sq. m.) were built, repaired and upgraded.



Graph 1. Number of accepted applications filed by natural persons from the Kalisz district under Measure 121 “Modernization of farms” (investment amounts); payment stage

Source: own study based on unpublished data provided for in a communication from ARiMR of May 11, 2017 concerning reuse of public sector information

As mentioned earlier, the projects declared under this Measure may have different goals. One of them was to *improve production quality* (considered as a priority by the applicants). As shown by the analysis, the total operating costs of projects implemented in the Kalisz district were PLN 11,182,413.00 (Table 2). The horticulturists used most of the Union funds to purchase machinery, equipment or farming tools, including software. They used the support to purchase 355 mobile equipment items, including 4 agricultural tractors, 42 agricultural machines, farm tools, devices and means of transport (other than tractors) for crop production.

The next goal was to adjust the profile, scale and quality of production to match the market needs. In the period under consideration, as many as 28 natural persons engaged in horticultural activities from the Kalisz district accessed support to finalize their planned investments. These included eight residents of the Opatówek municipality, five residents of the Koźminek municipality, four residents of the Szczytniki municipality, eight residents of the Żelazków municipality and one resident of the Stawiszyn municipality. In accordance with the calculation presented by the beneficiaries, the total amount of investments aimed at improving production quality was PLN 11,382,700. As a part of these activities, farmers specializing in horticulture extended their farm assets with, for instance, 199 mobile equipment items. Only two residents of the Kalisz district

decided to invest in improvements of hygiene conditions of production. The first applicant was a 35-year-old woman from the Szczytniki municipality. Her investment, amounting to PLN 252,539.00, was to purchase greenhouse equipment in order to improve the environmental protection conditions. The amount of the other investment, made by a 34-year-old man from the Godziesze Wielkie municipality, was PLN 615,826.00. That amount was allocated to reconstructing the greenhouse and the boiler room, including the purchase of greenhouse equipment consisting of a controller, cultivation gutters and energy-saving curtains.

Table 2. Operating costs (investment goal): improvements in production quality)

Type of operating costs	Value (PLN)
Construction, repair and/or modernization of greenhouses with equipment	4,799,862.00
Construction, repair and/or modernization of other buildings used in agricultural operations	216,280.00
Purchase of machinery, equipment or farming tools, including software	4,867,214.00
Purchase of propagating or planting material	157,140.00
Costs of fencing and of purchasing essential technical and technological equipment	178,412.00
Purchase or construction of other technical infrastructure components directly affecting the conditions of farming operations	797,455.00
Purchase of computer hardware and software to support the farming operations	166,050.00
TOTAL:	11,182,413.00

Source: own study based on unpublished data provided for in a communication from ARiMR of May 11, 2017 concerning reuse of public sector information

When it comes to the goal defined as *improving the environmental protection conditions*, the investments, amounting to a total of PLN 904,508, involved the modernization of machinery, purchasing new equipment and constructing a maneuvering yard. Another highly important argument was the implementation of new production technologies. In the period covered by this analysis, funds were granted for that purpose under the 2007-2013 RDP to 17 beneficiaries from the Kalisz district who invested a total of PLN 8,437,037.00. This allowed to build or modernize greenhouses with a total area of 15,794.7 sq. m. What should be noted is that only one resident of the Kalisz district (a 54-year-old applicant from the Żelazków municipality) was granted Union funds for an investment aimed at upgrading the technical infrastructure of production, including road infrastructures. Worth PLN 494,706, this investment covered the modernization of vegetable storage facilities and the purchase of pallet boxes. In the 2007-2013 Rural Development Program, support provided under Measure “Modernization of farms” was of considerable importance to farms and horticultural undertakings. The financing helped them implement their planned investments. In the period under consideration, the investments completed by the applicants in the Kalisz district enabled the achievement of outcomes presented in Table 3.

When analyzing the data in Table 3, it may be noted that the key effect of Union subsidies was the implementation of projects involving the construction, repair and modernization of greenhouses. Also, new agricultural machinery, farming tools, devices and means of transport (other than tractors) for crop production, including software, were purchased. The value added reflects the operator’s economic situation, and is the basic criterion for assessing the efficiency of productive inputs. In the investments completed as a part of the 2007-2013 RDP, Axis 1 “Improving the competitiveness of the agricultural and forestry sector,” Measure 121 “Modernization of farms,” the value added was PLN 17,814,600.05 As shown by the analyses, only one project reported a negative value added (– PLN 9693.13). Implemented by an applicant from the Szczytniki municipality, the investment involved the purchase of greenhouse equipment and the modernization of machinery in order to improve the farm’s labor productivity. In turn, as regards investments in the rationalization



of production technologies and in the modernization of road infrastructures (which involved purchasing polytunnel equipment and hardening the maneuvering yard), the value added was PLN 10,215.00. The investment in a project for the construction of a greenhouse in order to adjust the profile, scale and quality of production to match the market needs resulted in a value added of PLN 1,507,308.00.

Table 3. Summary of investment outcomes achieved by farms and horticultural undertakings of the Kalisz district under Measure 121 “Modernization of farms”

Investment outcomes	Units	
	m ² /ha/item	PLN
Construction, repair and/or modernization of greenhouses with equipment (m ²)	176,672.86	11,601,152.04
Construction, repair and/or modernization of other buildings used in agricultural operations (m ²)	2,645.87	1,294,267.98
Purchase of mobile equipment (agricultural tractors)	20	3,855,107.83
Purchase of mobile equipment (agricultural machinery, farming tools, devices and means of transport (other than tractors) for crop production) (items)	201	9,686,878.85
Purchase of mobile equipment (agricultural machinery, farming tools, devices and means of transport (other than tractors) for livestock production) (items)	2	165,804.00
Purchase of mobile equipment (equipment, machine components, tools and accessories, including software) (items)	474	374,288.88
Purchase of computer hardware (items)	1	172,200.00
Construction/modernization of technical infrastructure components (maneuvering yards) (m ²)	14,432.85	2,961,665.89
Establishment/modernization of orchards or permanent plantations (ha)	9.61	373,570.80
Construction/modernization of production and direct sales facilities in farms (m ²)	1,344	72,635.19

Source: own study based on unpublished data provided for in a communication from ARiMR of May 11, 2017

Another Measure which enjoyed great popularity under the 2007-2013 Rural Development Program, with a large share of applicants from the Kalisz district, was Measure 112 “Setting up of young farmers.” Premiums granted to beneficiaries from the Kalisz district engaged in horticulture as a core production activity amounted to PLN 75,000 or PLN 100,000. As revealed by the analysis of the applicants’ activity, the group was composed of 11 students, 4 unemployed, 2 employees and 1 entrepreneur. In the entire group of applicants for Union payments, fourteen were members of a farming household. Based on the analyses, it was found that premiums were disbursed to 64% of the applicants. In the Kalisz district, throughout the term of the 2007-2013 RDP, 34 applications for aid were filed under the aforesaid Measure. However, Union funds were disbursed to 21 applicants (the success rate was 61.75%). The analysis of the beneficiaries’ activity reveals that most of them were based in the Opatówek municipality (29.41%), followed by Żelazków and Blizanów municipalities (17.65%), Koźminek municipality (14.61%), Szczytniki municipality (8.82%), Stawiszyn municipality (5.88%), and Godziesze and Mycielin municipalities (2.94%). No applications for aid were filed in the Lisków, Brzeziny and Ceków Kolonia municipalities. Because of the program’s purpose, in most cases, the funds were allocated to the purchase or modernization of machinery.

SUMMARY

Generally, the development of horticultural undertakings and farms is based on implementing investment projects which affect both the quantitative and qualitative growth. The Agency for Restructuring and Modernization of Agriculture is the Poland's largest paying agency and plays a major role in the positive developments taking place in Polish rural areas. While helping to improve the quality of labor, the broad range of Measures implemented by ARiMR improve the efficiency of the horticultural business and ensure protection of the natural environment. Both farms and horticultural undertakings operate in the Kalisz district, and rely on various sources of financing, including Union grants. It has to be recognized that Modernization of farms (121) and Setting up of young farmers (112) were the two most popular Measures with farmers from the Kalisz district, especially as regards the 2007-2013 RDP. The total operating costs of projects implemented under Measure 121 in the entire Kalisz district were PLN 117,633,543. The applicants used the support to purchase mobile equipment, tractors, agricultural machines, tools, devices and means of transport for crop production. Also, many greenhouses were built, repaired and upgraded. As regards Measure 112, the funds in the form of premiums were used for the modernization of machinery, i.e. purchase of specialized horticultural machines or equipment. The analysis of selected Measures implemented in the Kalisz district under the 2007-2013 RDP allows concluding that European Union funds helped considerably improve the situation of the local horticulture sector.

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